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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,499	04/03/2001	Gregory A. Peterson	EDAC:013(10793.0013.NPUS0	2017
7590	09/27/2005		EXAMINER	
Thomas V. Miller Howrey Simon Arnold & White, LLP P.O. Box 4433 Houston, TX 77210-4433			PAIK, SANG YEOP	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/825,499	PETERSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sang Y. Paik	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 7,13,20-26,28-37 and 39-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 7,13,20-26,28-37 and 39-42 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ .	6) <input type="checkbox"/> Other: ____ .

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Applicant is advised that the Notice of Allowance mailed is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.
2. The indicated allowability of claims is withdrawn in view of the newly discovered reference(s) to Earl et al (US 5,304,735), Goetz et al (US 5,717,189), Coe (US 3,149,666) and McAdam et al (US 3,277,346). Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7, 13, 21-26 and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Coe (US 3,149,666).

Coe shows a heat sink having a tubular body with a plurality of internal fins extending symmetric around the center of the interior of the tubular body, the internal fins have varying lengths with the fins in the center of set are longer than the fins at the edge of the set, an exterior surface having a substantially flat surface with a mounting ridge (22) which is capable of being

Art Unit: 3742

mounting a clip to hold a component against the substantially flat portion, the exterior surface with a plurality of exterior fins extending from the exterior surface, and a fan positioned adjacent to an open end of the tubular body.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 20, 32, 36, 37, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US 6,339,212) in view of Goetz et al (US 5,717,189), Gandre et al (US 5,828,549) and Earl et al (US 5,304,735).

Campbell shows the cooktop claimed including a cooking plate, a plurality of heating units and a controller mounted below the cooking plate, a circuit box having a plurality of electronic components, and a heat sink to cool down the electronic components. However, Campbell does not explicitly show the circuit board and further does not show the claimed heat sink assembly.

Goest shows a cooktop having a cooking plate with burners that are controlled by the electronic components that provided with the printed circuit boards. In view of Goest, it would have been obvious to one of ordinary skill in the art to provide the electronic components of Campbell on a circuit board since such circuit board is well known and conventional in the art to create the necessary control circuitry.

Gandre shows a heat sink having a tubular body with a substantially flat exterior surface, a plurality of internal fins extending from the interior surface of the heat sink, a plurality of external fins extending from the exterior surface, a fan positioned adjacent to an open end of the tubular body, and a circuit board attached to the tubular body to cool down the circuit board. Earl shows a heat sink having an exterior surface with a mounting ridge to mount a control board with a clip. Thus, in view of Gandre and Earl, it would have been obvious to one of ordinary skill in the art to adapt Campbell, as modified by Goest, with the heat sink having a mounting ridge to more securely attach the circuit board.

7. Claims 33-35, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell in view of Goetz, Gandre and Earl as applied to claims 20, 32, 36, 37, 41 and 42 above, and further in view of Coe (US 3,149,666) or McAdam et al (US 3,277,346).

Campbell in view of Goetz, Gandre and Earl shows the cooktop claimed except the internal fins being symmetric around the center of the tubular body with the center fins longer than the edge fins.

Coe and McAdam show a tubular heat sink with a plurality of internal fins extending symmetric around the center of the interior of the tubular body and the internal fins further having varying lengths with the center fins of a set having longer lengths than the edge fins of the set. In view of Coe or McAdam, it would have been obvious to one of ordinary skill in the art to adapt Campbell, as modified by Goest, Gandre and Earl, with the claimed internal fins to more effectively provide the heat convection away from the electronic circuit components.

Art Unit: 3742

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y. Paik whose telephone number is 571-272-4783. The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Paik  
Sang Y Paik  
Primary Examiner  
Art Unit 3742

syp